

Abstract of the Disclosure

A microcellular injection blow molding system and method, and microcellular blow molded articles produced thereby, are described. The system is equipped to extrude microcellular material that changes in thickness, material density, or both in the machine direction while maintaining a constant pressure drop rate during nucleation just prior to extrusion, providing the ability to produce consistent uniform microcellular material independent of material thickness. The systems and methods are particularly useful in production of strong, thin-walled, non-liquid-permeable, opaque containers that do not contain reinforcing agent, chromophore, or residue of chemical blowing agent or chemical blowing agent by-product.